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BILL ACCEPTOR

# PA7/PA7-U

INSTALLATION GUIDE

International Currency Technologies Corp.

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# Contents

1. Introduction	
1-1. Overview .....	2
1-2. Features .....	2
2. Specifications .....	3
3. Packing List .....	3
4. Dimension .....	4
4-1. Bezel Style .....	5
5. Installation	
5-1. Harness Application .....	6
5-1-1. I/O Circuit .....	17
5-2. DIP Switch Setting .....	23
5-3. Software Download and Upgrade .....	23
6. Maintenance .....	24
7. Troubleshooting	
7-1. Bezel LED Errors .....	25
7-2. Back LED Errors .....	26

# **1. Introduction**

## 1-1. Overview

PA7/PA7-U is a bill acceptor which features as high-security with acceptance rate up to 96% or even greater.

## 1-2. Features

- Auto-calibrating.
- Easy Maintenance.
- Four-way bill insertion acceptance.

# **2. Specifications**

### ***General***

**Acceptance Rate** 96% or greater

*Note: The acceptance rate excludes notes that are dirty, wet, broken or wrinkled.*

**Bill Insertion** Four-way acceptable

**Transaction Speed** Approx. 3 seconds to stack

**Interface** Pulse, ICT Protocol, NISR, 5V ENABLE, single price(PA7-U).

### ***Electrical***

**Power Source** 12V DC(10.8~13.2V DC)  
117V AC(105.3~128.7V AC)

<b>Power Consumption</b>	12V DC - Standby: 0.28A, 3.4W Operation: 0.9A, 11W Maximum: 2.5A, 30W 117V AC- Standby: 0.045A, 5W Operation: 0.1A, 11W Maximum: 0.2A, 22W
<b>Operation Environment</b>	Operation Temperature: 0°C~55°C Storage Temperature: -30°C~70°C Humidity: 30%~85% RH(no condensation)

***Mechanical***

<b>Bill width</b>	62~72mm
<b>Bill Capacity</b>	Approx. 400 bills(300~400) Approx. 500 bills(400~500) Approx. 800 bills(700~800)
<b>Weight</b>	Approx. 1.3kg

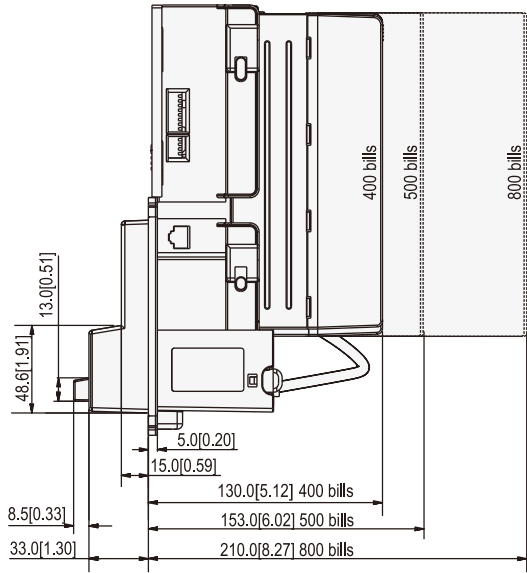
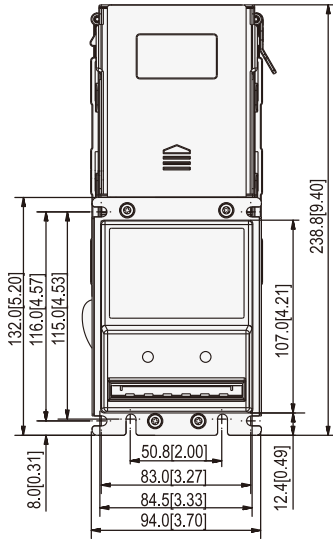


**Installation: Indoor use only!!**

**3. Packing List**

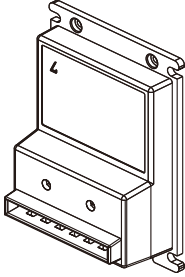
<b>Main</b>	Bill Acceptor
<b>Accessory</b>	Harness: Refer to 5-1 PA7/PA7-U Installation Guide PA7/PA7-U DIP Switch Setting Guide

## 4. Dimension



Unit:mm[inch]

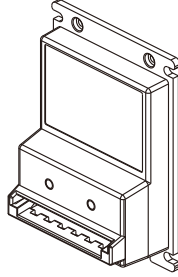
## 4-1. Bezel Style



4-1 FIG.01

### Compact Bezel

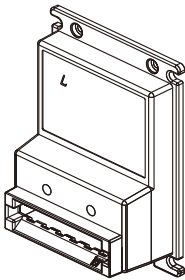
Part Number: A2209A00-R



4-1 FIG.02

### Bezel (Step Style)

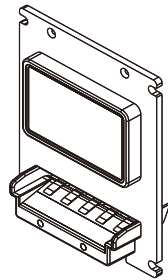
Part Number: A3025000-R



4-1 FIG.03

### Two Sided Bezel

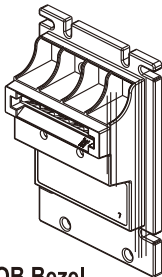
Part Number: A2422B00-R



4-1 FIG.04

### Horizontal Stacker Bezel

Part Number: A24260-R



4-1 FIG.05

### TOB Bezel

Part Number: A2582000-R

## 5. Installation

### 5-1. Harness Application

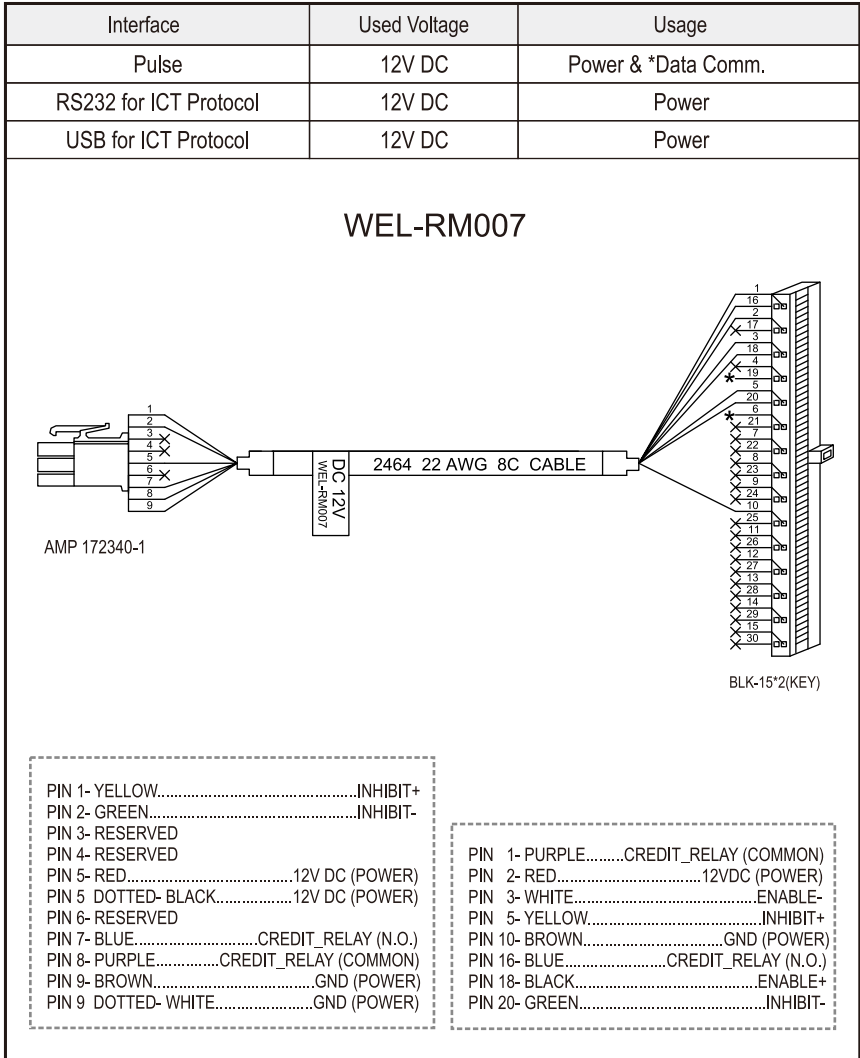
5-1 TABLE 01

Model	Interface		Used Voltage	Usage	Harness	Page		
<b>PA7/ PA7-U</b>	Pulse		12VDC	Power & *Data Com.	WEL-RM007	7		
				Extension Wire	CU-R961-1	8		
			117VAC	Power & *Data Com.	WEL-RM008	9		
				Extension Wire	WEL-RM012	10		
	Pulse+5V Enable		117VAC	Power & *Data Com.	WEL-RM017	11		
				Extension Wire	WEL-RM018	12		
	NISR		117VAC	Power & *Data Com.	3-BA-RM023	13		
	ICT Protocol		RS232	12V DC	Power	WEL-RM007	7	
					Extension Wire	CU-R961-1	8	
					*Data Comm.	WEL-RV706-1 or 2-BA-RV706	15	
					117V AC	Power	WEL-RM008	9
						Extension Wire	WEL-RM012	10
						*Data Comm.	WEL-RV706-1 or 2-BA-RV706	15
			** USB		12V DC	Power	WEL-RM007	7
					117V AC	Power	WEL-RM008	9
5V DC					*Data Com.	WEL-RU1180 (Optional)	14	
<b>PA7-U</b>	Single Price		117V AC	Power & *Data Com.	WEL-RM031	16		

\*Data Com. : Data Communication.

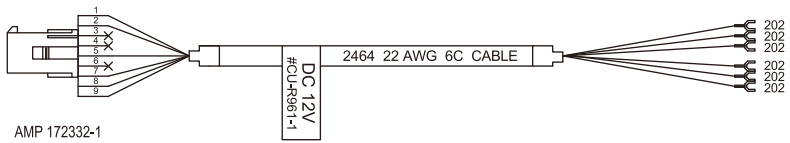
\*\*USB is only compatible with model PA7-UXXXX-XXXX.

5-1 FIG.01

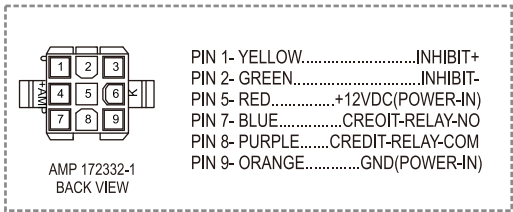


Interface	Used Voltage	Usage
Pulse	12V DC	Extension Wire for WEL-RM007
RS232 for ICT Protocol	12V DC	Extension Wire for WEL-RM007

CU-R961-1



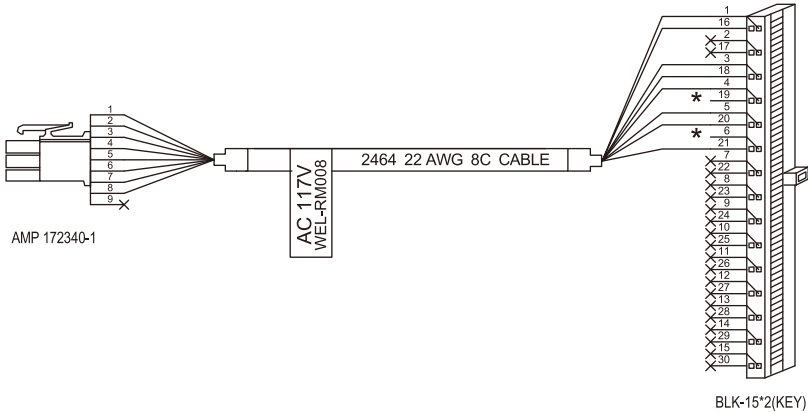
AMP 172332-1



5-1 FIG.03

Interface	Used Voltage	Usage
Pulse	117V AC	Power & *Data Comm.
RS232 for ICT Protocol	117V AC	Power
USB for ICT Protocol	117V AC	Power

### WEL-RM008



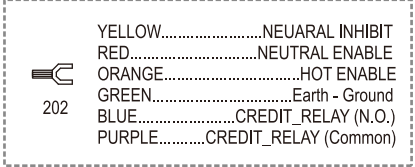
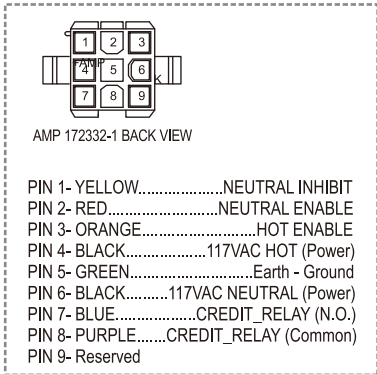
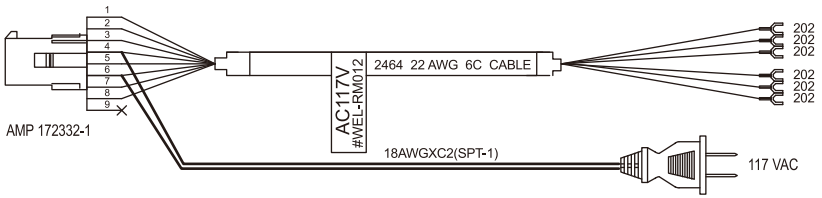
AMP 172340-1  
BACK VIEW

PIN 1- YELLOW.....NEUTRAL INHIBIT  
 PIN 2- RED.....NEUTRAL ENABLE  
 PIN 3- BROWN.....HOT ENABLE  
 PIN 4- BLACK.....117VAC HOT(Power)  
 PIN 5- GREEN.....Earth-Ground  
 PIN 6- WHITE.....117VAC NEUTRAL(Power)  
 PIN 7- BLUE.....CREDIT\_RELAY(N.O.)  
 PIN 8- PURPLE.....CREDIT\_RELAY(Common)

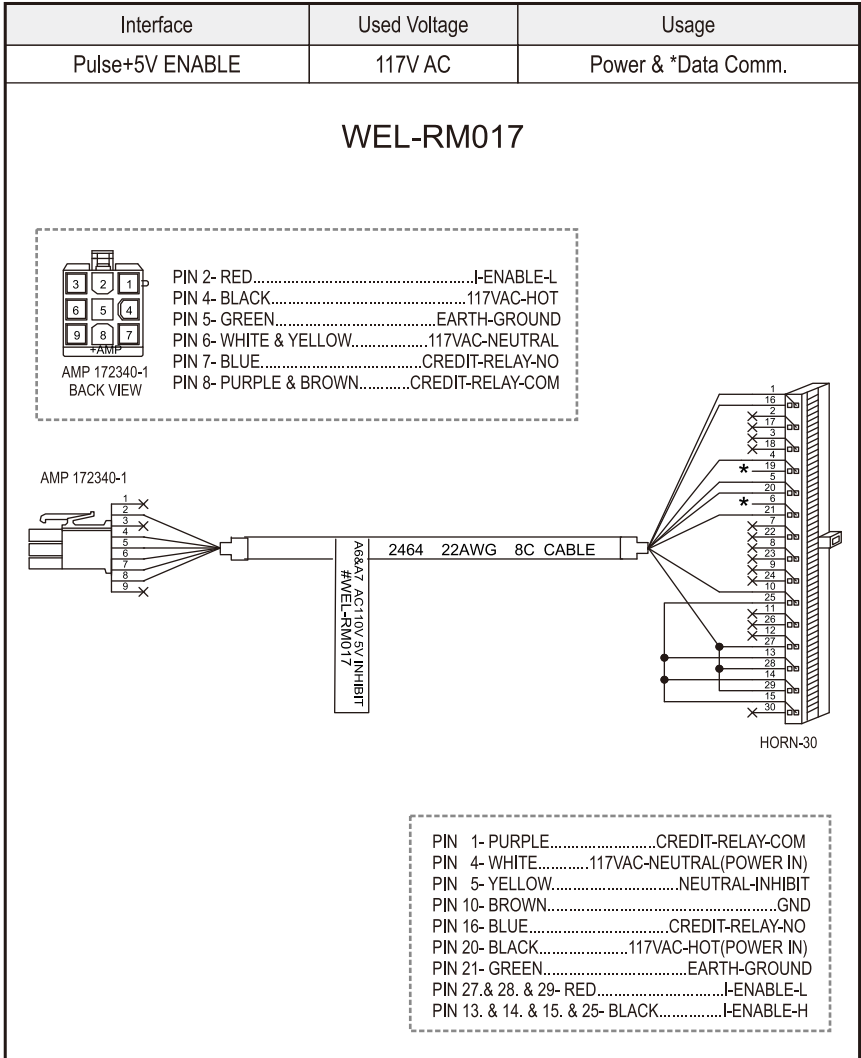
PIN 1- PURPLE.....CREDIT\_RELAY(Common)  
 PIN 3- RED.....NEUTRAL ENABLE  
 PIN 4- WHITE.....117VAC NEUTRAL(Power)  
 PIN 5- YELLOW.....NEUTRAL INHIBIT  
 PIN 16- BLUE.....CREDIT\_RELAY(N.O.)  
 PIN 18- BROWN.....HOT ENABLE  
 PIN 20- BLACK.....117VAC HOT (Power)  
 PIN 21- GREEN.....EARTH GROUND

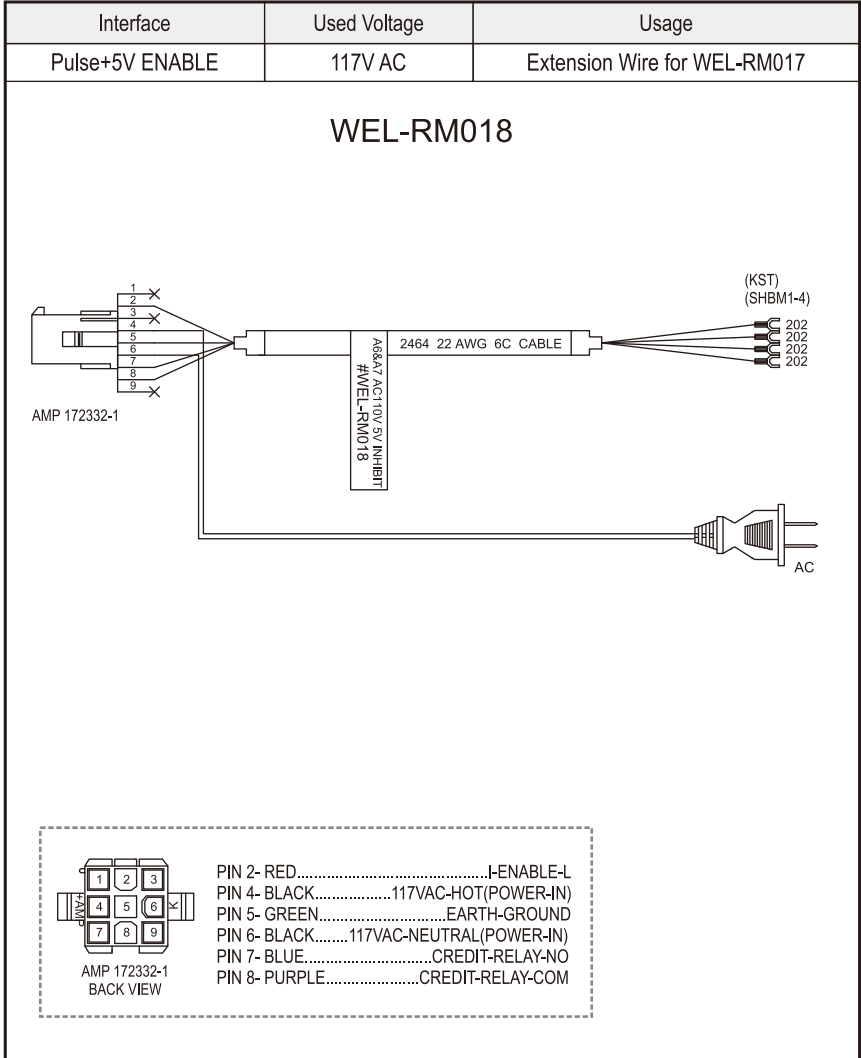
Interface	Used Voltage	Usage
Pulse	117V AC	Extension Wire for WEL-RM008
RS232 for ICT Protocol	117V AC	Extension Wire for WEL-RM008

### WEL-RM012

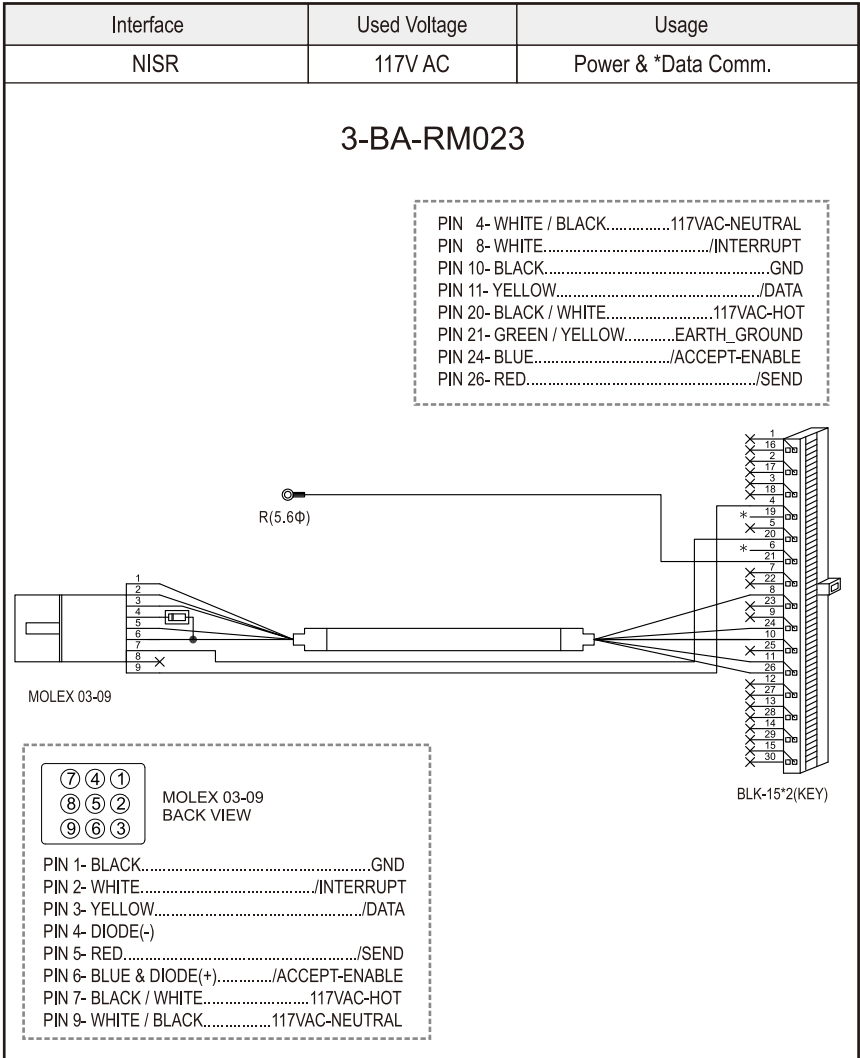


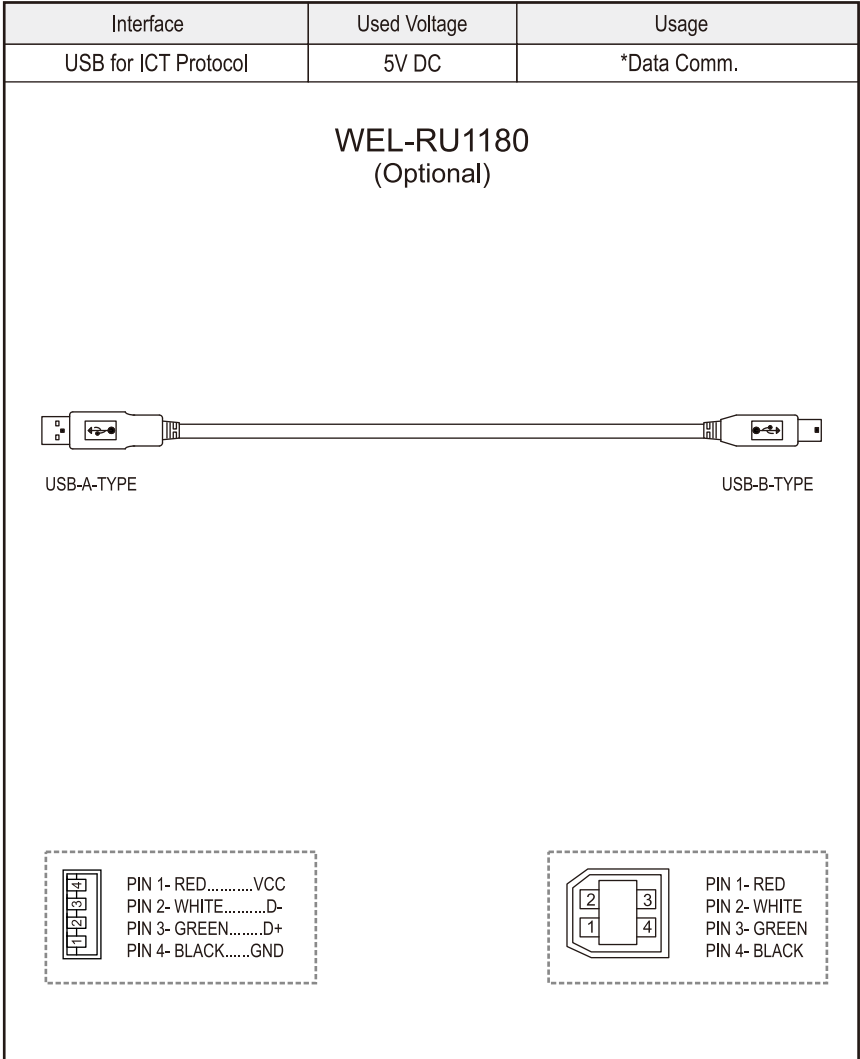
5-1 FIG.05



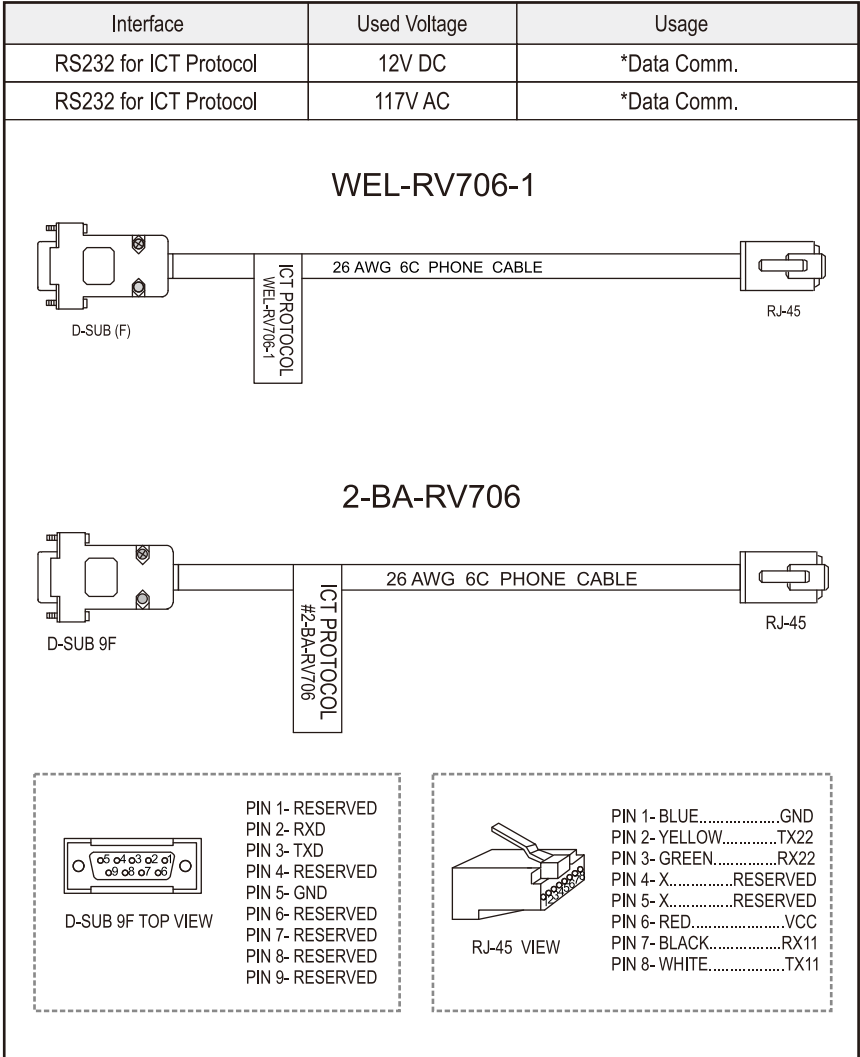


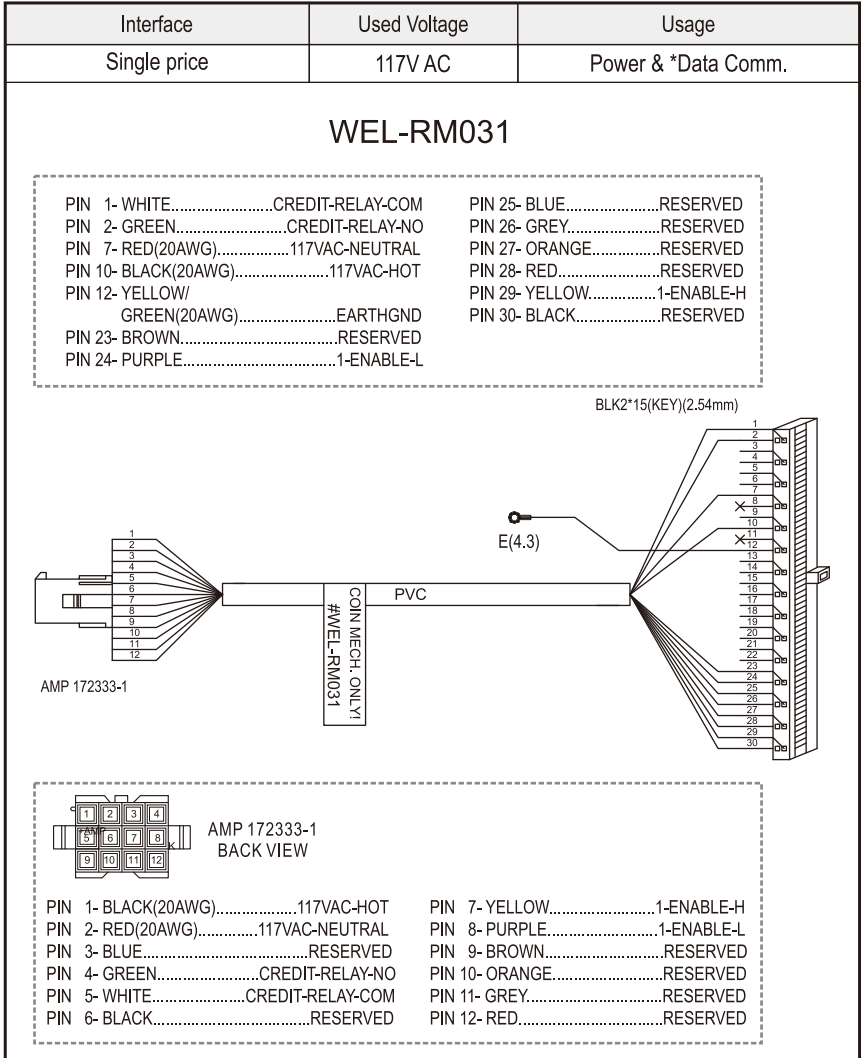
5-1 FIG.07





5-1 FIG.09

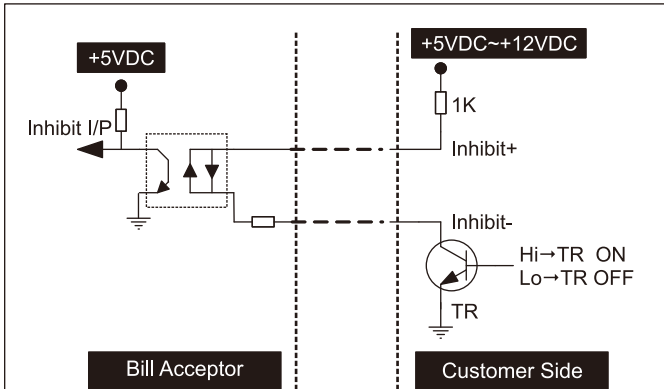
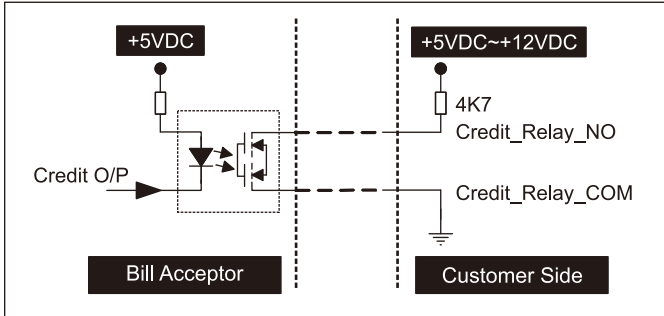




### 5-1-1. I/O Circuit

#### Pulse Interface.

5-1-1 FIG.01

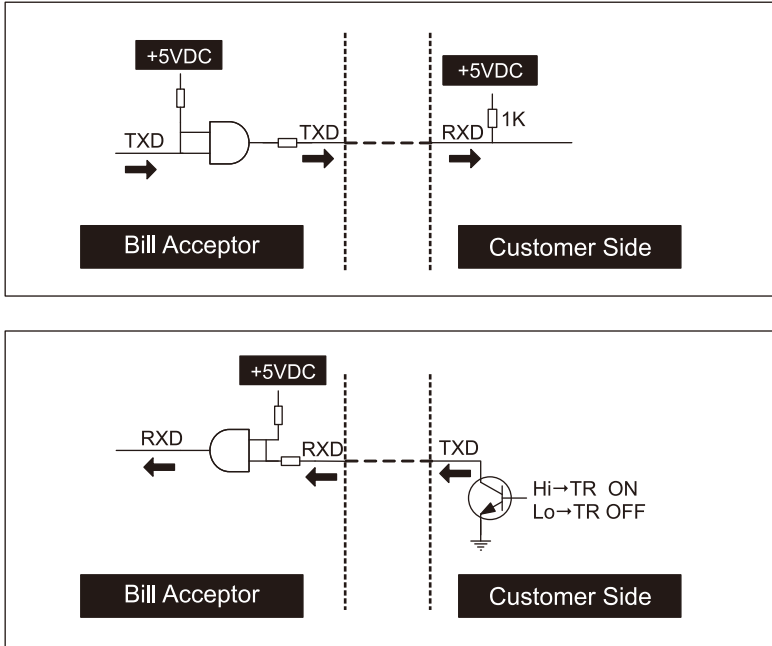


BA Status	*DIP SW Setting	Control Signal
Inhibit	Low	Low
	High	High
Enable	Low	High
	High	Low

*\*Note: Please refer to DIP Switch Setting Guide for detail.*

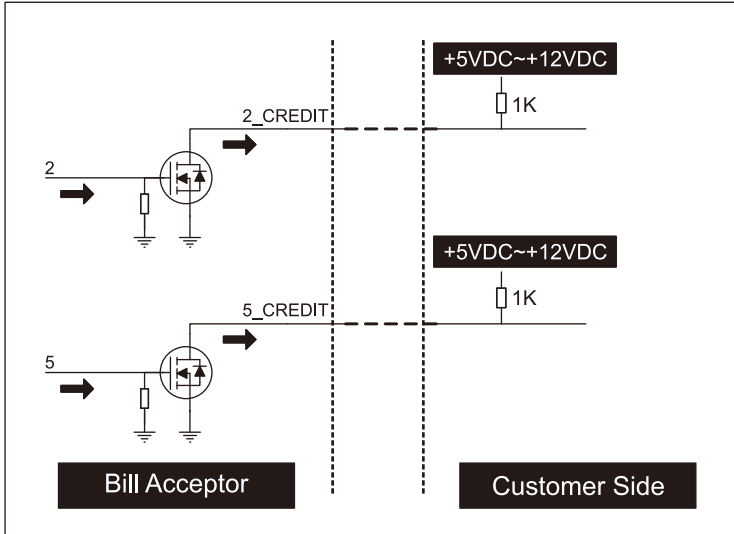
ICT Protocol Interface.

5-1-1 FIG.02



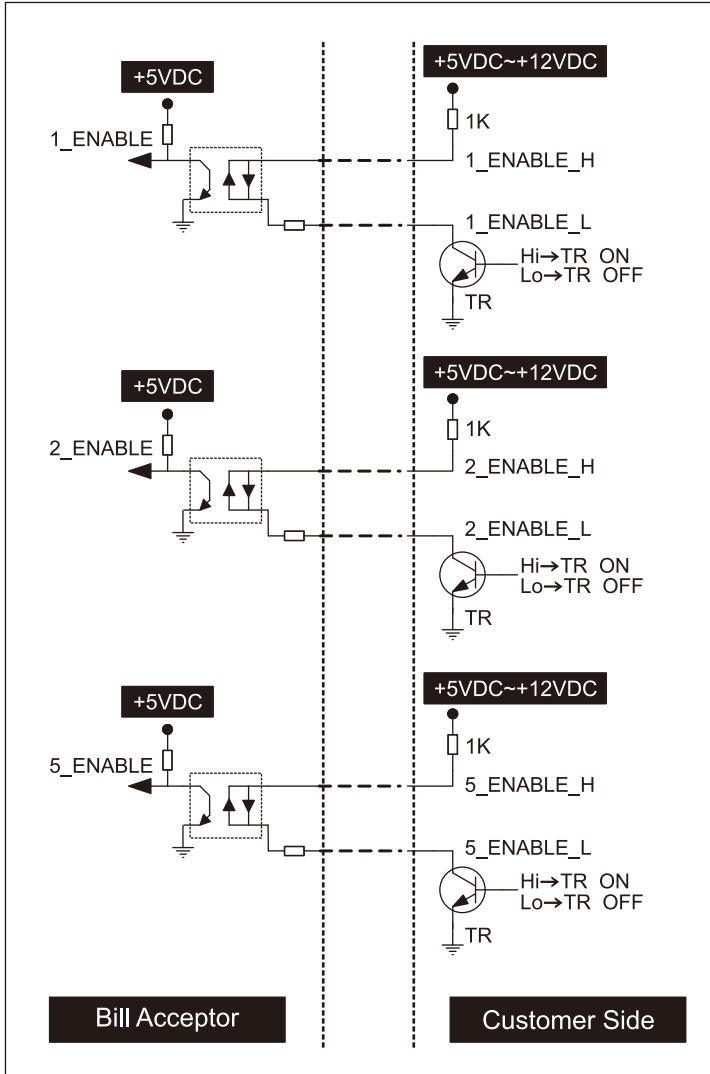
## 5V Enable Interface-1.

5-1-1 FIG.03-1



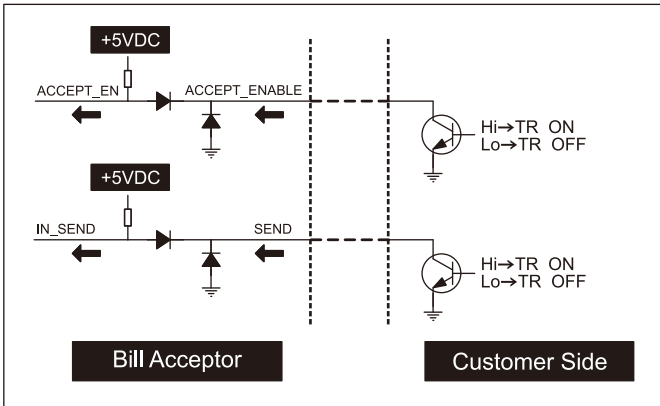
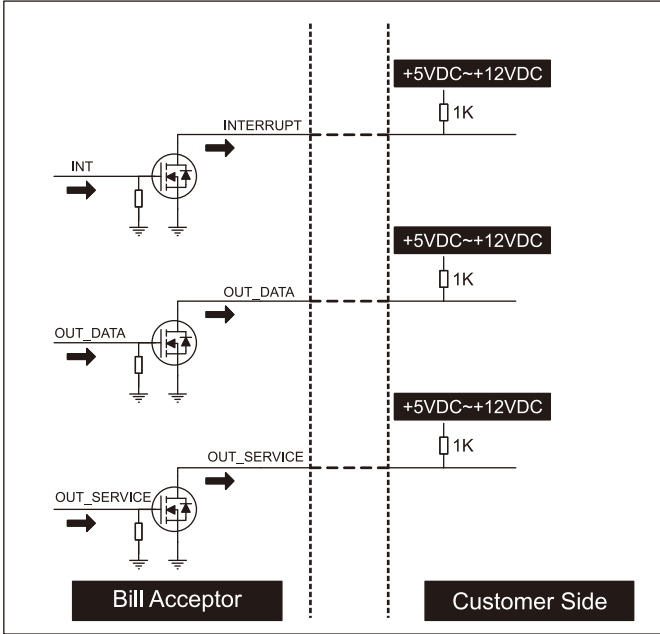
5V Enable Interface-2.

5-1-1 FIG.03-2



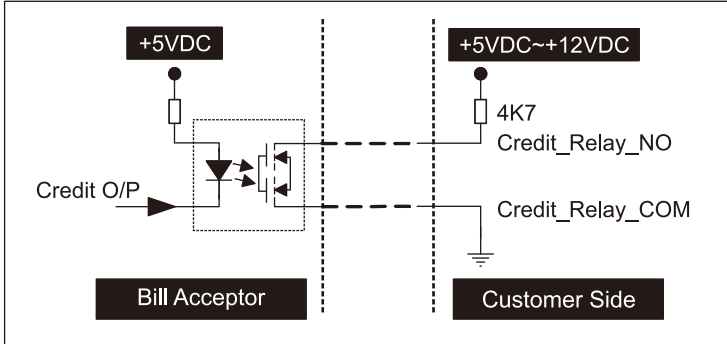
NISR Interface.

5-1-1 FIG.04



Single Price Interface.

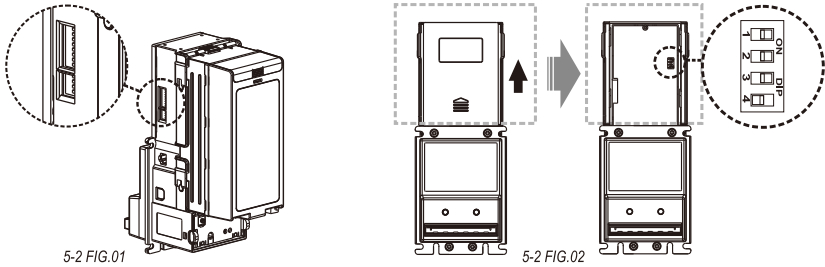
5-1-1 FIG.05



### 5-2. DIP Switch Setting

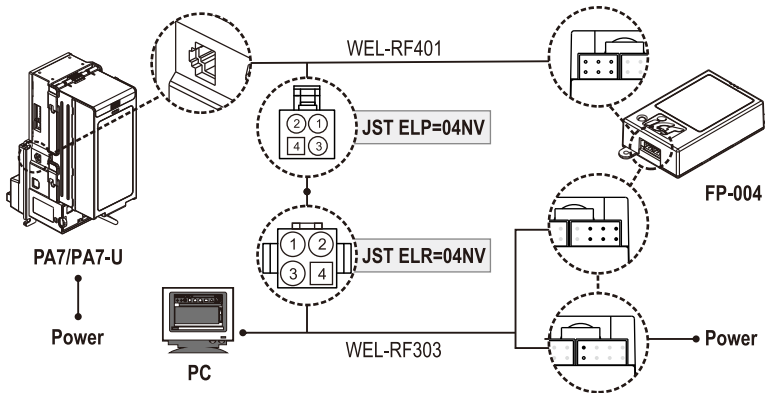
There are two serial DIP switches which are located on the side of PA7/PA7-U(as 5-2 FIG.01). According to different currencies which are used by users, DIP switch settings could be varied to fit users' needs. Besides, there's also a serial DIP switches on CPU board inside of PA7/PA7-U for interface settings(as 5-2 FIG.02).

Please refer to "PA7/PA7-U DIP Switch Setting Guide" in the package for more details.



### 5-3. Software Download and Upgrade

To download and upgrade the software to PA7/PA7-U, the programmer(FP-004) is needed. Please contact ICT to purchase FP-004 and refer to FP-004 user guide for software download and upgrade information.



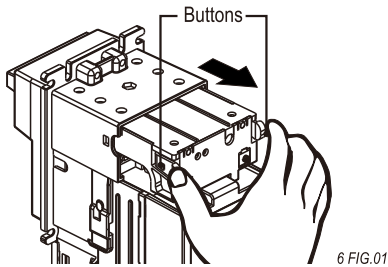
Power must be applied to Bill Acceptor **after** connecting.

## 6. Maintenance

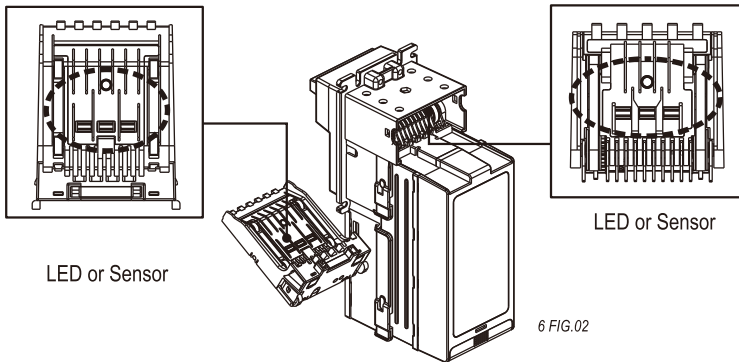
To make sure the bill acceptor always works smoothly, please clean the internal parts regularly.


To clean the internal parts:

1. Press the buttons on the sides of bill path and pull the unit out.



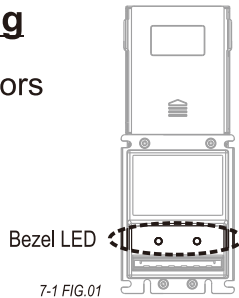
2. Use a soft, dry cloth, or towel to clean the bill path and LED/sensors.



	<b>Maintenance Notice</b> <i>(Any improper maintenance will result in invalid warranty.)</i>	
	<b>Recommended</b>	Mild, non-abrasive, soap water.
	<b>DO NOT USE</b>	Organic solvent , Alcohol, Volatile liquid.

## 7. Troubleshooting

### 7-1. Bezel LED Errors



7-1 TABLE 01

LED	Status	Correct Actions
<b>GREEN</b>	White Card Calibration.	Please calibrate with ICT white calibration card.

7-1 TABLE 02

LED Flashes	Status	Corrective Actions
<b>RED</b>		
1	Bill jammed.	Remove the bill box by sliding the top button (as 7-2 FIG.01) and the bill path unit, and then remove the jammed bill.
2	Inhibit on.	Inspect for right DIP switch settings.
3	Sensor error.	Inspect for foreign objects on sensor and hook then clean.
4	Stringing attempt has detected.	Inspect for foreign objects on sensor or bill path and clean.
5	Stacker has been removed.	Replace the bill box.
7	Motor error.	Inspect for foreign objects on bill path and clean.
8	Stacker error or Stacker full.	Inspect for foreign objects in bill box and clean or remove bills in bill box.



**If the error can not be solved after corrective actions or happen again, please contact ICT for technical support.**

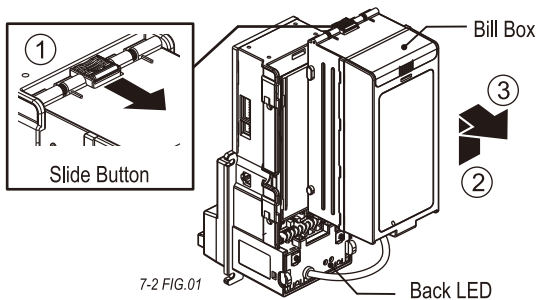
## 7-2. Back LED Errors

7-2 TABLE 01

LED	Status	Correct Actions
<b>GREEN</b>	White Card Calibration.	Please calibrate with ICT white calibration card.

7-2 TABLE 02

LED Flashes	Status	Corrective Actions
<b>RED</b>		
1	Bill jammed.	Remove the bill box by sliding the top button (as 7-2 FIG.01) and the bill path unit, and then remove the jammed bill.
2	Inhibit on.	Inspect for right DIP switch settings.
3	Sensor error.	Inspect for foreign objects on sensor and hook then clean.
4	Stringing attempt has detected.	Inspect for foreign objects on sensor or bill path and clean.
5	Stacker has been removed.	Replace the bill box.
7	Motor error.	Inspect for foreign objects on bill path and clean.
8	Stacker error or Stacker full.	Inspect for foreign objects in bill box and clean or remove bills in bill box.



**!** If the error can not be solved after corrective actions or happen again, please contact ICT for technical support.

**ict** Taiwan

**International Currency Technologies Corporation**

No.28, Ln. 15, Sec. 6, Minguan E. Rd., Neihu Dist., Taipei City 114, Taiwan

[sales@ictgroup.com.tw](mailto:sales@ictgroup.com.tw) (For Sales)

[fae@ictgroup.com.tw](mailto:fae@ictgroup.com.tw) (For Customer Service)

Website: [www.ictgroup.com.tw](http://www.ictgroup.com.tw)

